

What is Claimed is:

1. An auto refresh control circuit of a semiconductor memory device, comprising:

5 a command decoder for generating an auto refresh signal performing an auto refresh operation;

a wordline control means for activating wordlines when the auto refresh signal is activated, and for precharging the wordlines when an auto refresh operation
10 is finished; and

a buffer control means for inactivating the input buffers when the auto refresh signal is activated or a power down signal is activated, and for activating the input buffers when a signal detecting the end time of an
15 auto refresh is activated,

wherein when the input buffers are inactivated, the command decoder and input latches are inactivated.

2. The circuit according to claim 1, wherein the
20 signal detecting the end time of the auto refresh is a signal for activating the wordlines when the auto refresh signal is activated, the signal delayed during the auto refresh operation.

25 3. The circuit according to claim 1, wherein the command decoder and input latches are controlled by a clock signal outputted from a clock buffer among the input buffers.

4. The circuit according to claim 1, wherein the signal detecting the end time of the auto refresh is a precharge signal for precharging the wordlines.

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5. The circuit according to claim 1, wherein the buffer control means includes:

a pull-up means for pulling up an output terminal when the auto refresh signal is activated; and

10 a pull-down means for pulling down the output terminal when the signal detecting the end time of the auto refresh is activated.

6. The circuit according to claim 5, wherein the
15 buffer control means further includes a latch means for maintaining a potential of the output terminal.

7. The circuit according to claim 6, wherein the
buffer control means further includes a logic means for
20 inactivating the input buffers irrespective of the potential of the output terminal, when the power down signal is activated.